

Date: Wednesday, 30/04/2008 7:48:27 AM
 User: Jean-Luc Menard

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BUBBLE DOOR 412 VERTICLE REFERENCE
Job Number : 38896	
Estimate Number : 13138	
P.O. Number :	Part Number : D36761
This Issue : 30/04/2008 S.O. No. :	Drawing Number : D3676 PROTOTYPE
Prsht Rev. : NC	Project Number : 00224 08.04.24
First Issue : 30/04/2008 Type : THERMOFORMING	Drawing Revision : A
Previous Run : 37191	Material :
Written By : <i>DL</i>	Due Date : 07/05/2008 Qty: 2 Um: Each
Checked & Approved By :	
Comment : Est. Rev A New Product 01/24/2008 DL Verified:JLM	

PROTOTYPE

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	MACRLICS250	Plexiglass G .250
-----	-------------	-------------------



Comment: Qty.: 13.0000 sf(s)/Unit Total : 26.0000 sf(s)
 0.250" PLEXIGLAS G CLEAR CAST ACRYLIC SH

1) Batch # *M107871**BB 08/05/01*

2.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
-----	----------------	------------------------------



Comment: HAND FINISHING THERMOFORMING

1) Cut Blanks to 30" by 48"

*BB 08/05/01**(X3)*

3.0	THERMOFORMING	THERMOFORMING MACHINE
-----	---------------	-----------------------



Comment: THERMOFORMING MACHINE

Thermoform as per Dwg. D3676 and Folio FTA 018

Dwg. Rev. *A*
 Folio Rev. *A*

*DL 08.05.01**(X3)*

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

1) Check Surface finish for undesired marks, voids, dimples etc.

2) Check depth of bubble to ensure conformity to drawing tolerances.

*DL 08.05.01**(X3)**-PTO*

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BUBBLE DOOR 412 VERTICLE REFERENCE

Job Number: 38896

Part Number: D36761

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



**ENGINEERING
APPROVAL**



x2

BB 08/05/01

Comment: SECOND CHECK

08.05-30

6.0

HAND FINISH TH

HAND FINISHING THERMOFORMING



Comment: HAND FINISHING THERMOFORMING

- 1) Trim off excess flange material
- 2) Buff out any light scratches or blemishes
- 3) Etch part number and batch number

BB 08/05/05

7.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Ph. 08/05/05

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

- 1) Visually inspect for clarity, and proper formation.

08.05.70

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

not 08/05

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08.06.05 Perryape

Job Completion



FOR ENGINEERING USE ONLY

MVF
08-06-13

PROTOTYPE REQUEST FORM

DART Aerospace Ltd.

Product #: D412-761-041

Job #: 00224A

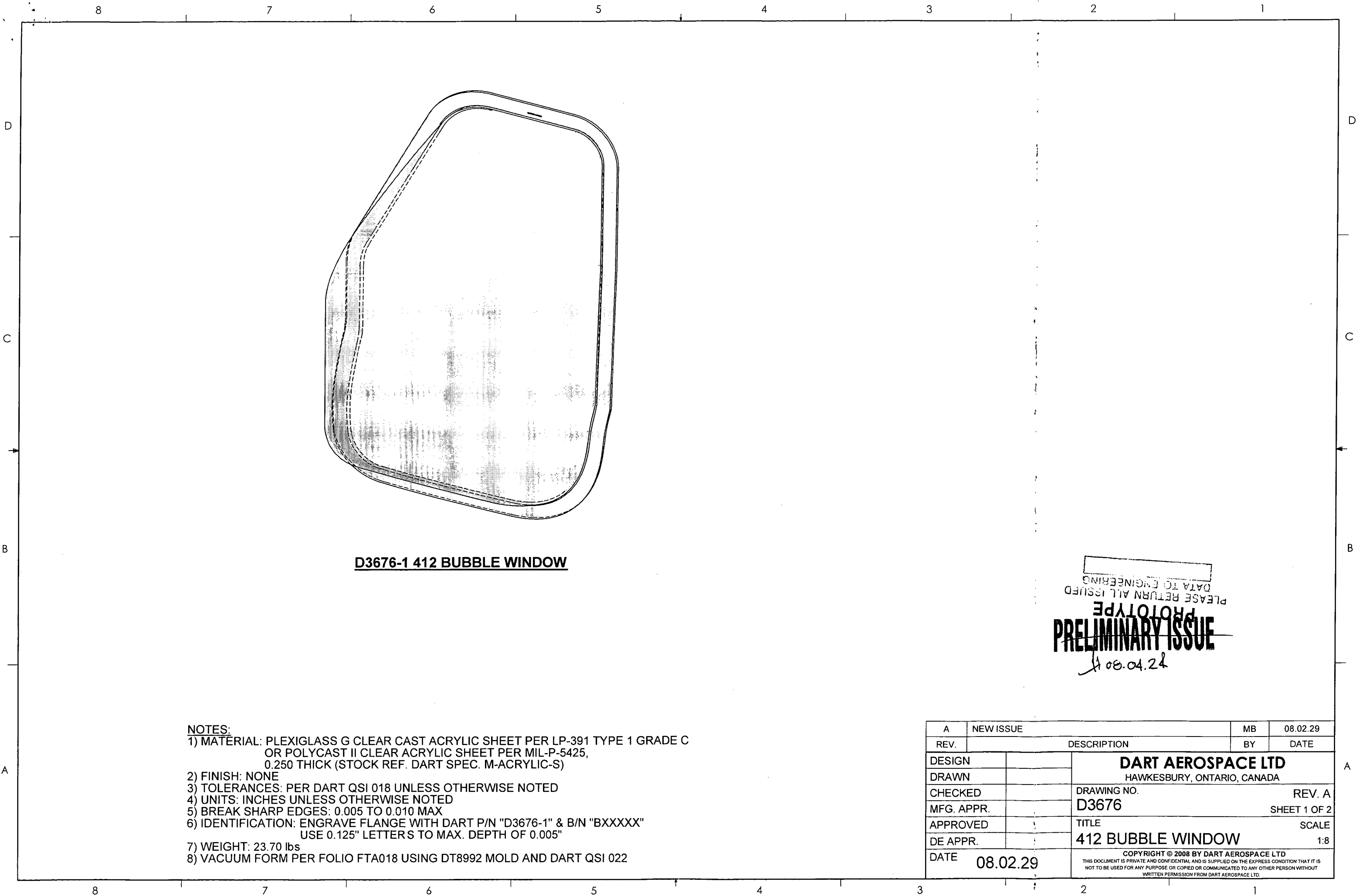
Date: 08.04.24

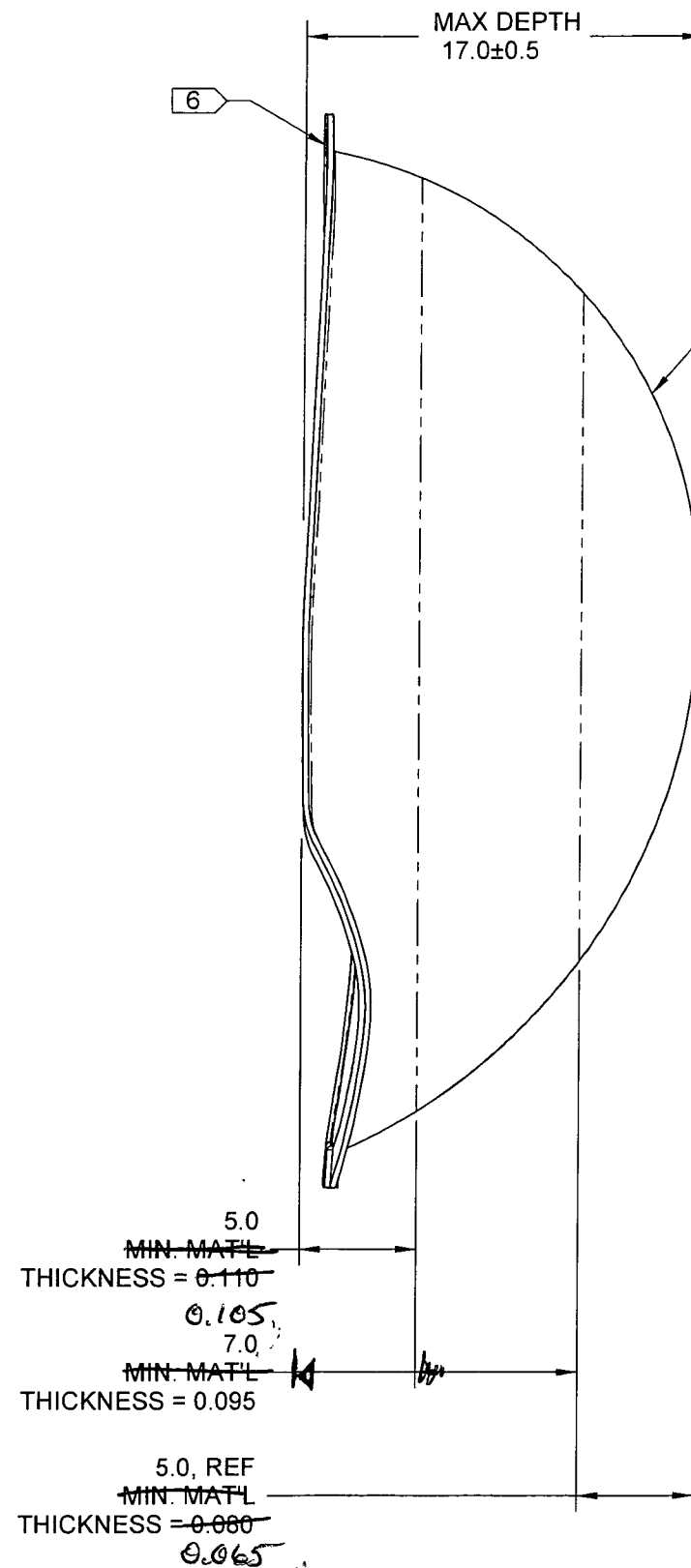
Product Name: FULL VERTICAL REF DOOR

Requested By: MB

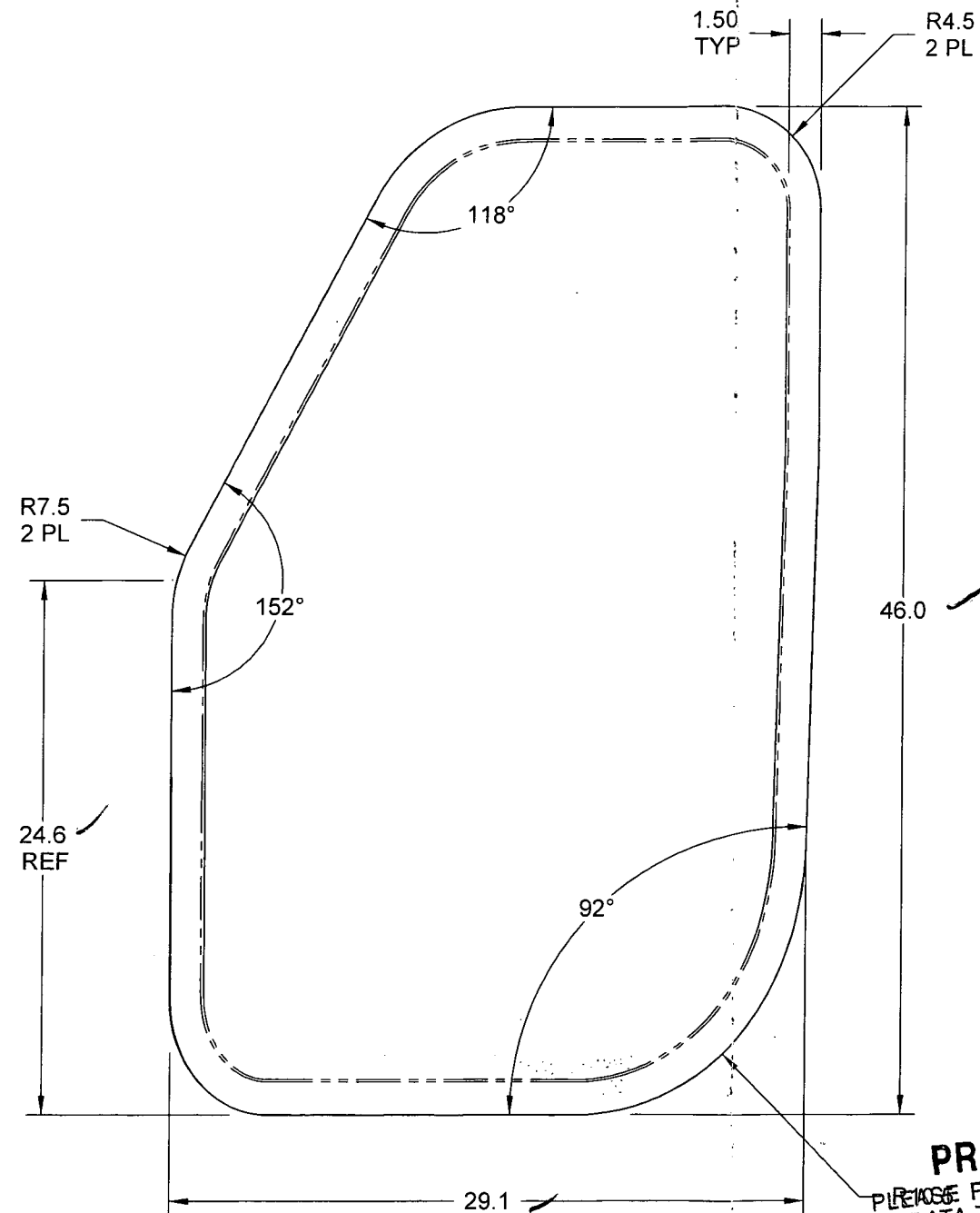
Design Manager Approval: 

Quantity	Part Number	Description	Drawing Date	Material Cert Req'd?	Due Date	Comments	Date Completed
1	D3676-1	BUBBLE WINDOW	08.02.29	Y	08.05.02	FOR TESTING	





D3676-1 412 BUBBLE WINDOW



PROTOTYPE
PLEASE RETURN ALL ISSUED
DATA TO ENGINEERING
PRELIMINARY ISSUE
308.04.24

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3676	REV. A
MFG. APPR.		SHEET 2 OF 2	
APPROVED		TITLE	SCALE
DE APPR.		412 BUBBLE WINDOW	1:8
DATE	08.02.29	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Man	Approval QC Inspector	
080505	4.	1 window used for a load test by engineering, 1 window remaining on this wo to close package.						

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
080501	4.	1 unit with mark in middle. - unknown cause. - 2nd time of trying to re form, blistered the bubble		Scrap & replace 1 of 2	080501 Wh			

NOTE: Date & initial all entries

DART AEROSPACE LTD	WORK ORDER: 38896
Description: 412 VR Bubble	Part Number: D3676-1
Inspection Dwg: D3676 Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

#1

☒ First Article ☐ Prototype

(Step 4) Thermoforming
Visual Inspection Sign-off

Scrap.

Description	Initials
Depth of bubble within tolerances	Oh
Acceptable shape definition	Oh
Free of visual flaws (bumps, cracks, voids, etc. Unknown MARK in CENTER OF Bubble.	

(Step 6) Trimming FAI Checklist

Inspect dimensions highlighted on inspection sheet drawing D3676 Rev. A and record below

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
17"	+/- 0.50"					
0.105"	+/- 0.010"					
0.100"	+/- 0.010"					
0.065"	+/- 0.010"					
1.5"	+/-0.100"					
46"	+/-0.100"					
29.1"	+/-0.100"					

Measured by: Oh	Audited by:	Prototype Approval:
Date: 08.05.01	Date:	Date:

Rev	Date	Change	Revised by	Approved
		New Issue		

DART AEROSPACE LTD	WORK ORDER: 38896
Description: 412 UR Bubble	Part Number: D3676-1
Inspection Dwg: D3676 Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

#2.

☒ First Article ☐ Prototype

(Step 4) Thermoforming
Visual Inspection Sign-off

Description	Initials
Depth of bubble within tolerances	Dh
Acceptable shape definition	Dh
Free of visual flaws (bumps, cracks, voids, etc.)	Sh

(Step 6) Trimming FAI Checklist

Inspect dimensions highlighted on inspection sheet drawing _____ Rev. __ and record below

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
17"	+/- 0.50"	17"	✓			
0.105"	+/- 0.010"	0.102"	✓			
0.100"	+/- 0.010"	0.090"	✓			
0.065"	+/- 0.010"	0.055"	✓			
1.5"	+/-0.100"					
46"	+/-0.100"					
29.1"	+/-0.100"					

Measured by: Dh.	Audited by: Dh	Prototype Approval: Dh
Date: 08.05.05	Date: 08.05.05	Date: 08.05.05

Rev	Date	Change	Revised by	Approved
		New Issue		

DART AEROSPACE LTD	WORK ORDER:	38896
Description: 412 UR Bubble	Part Number:	D3676-1
Inspection Dwg: D3676 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

#3

☒ First Article ☐ Prototype

(Step 4) Thermoforming
Visual Inspection Sign-off

Description	Initials
	1
Depth of bubble within tolerances	ph
Acceptable shape definition	ph
Free of visual flaws (bumps, cracks, voids, etc.)	ph

(Step 6) Trimming FAI Checklist

Inspect dimensions highlighted on inspection sheet drawing _____ Rev. __ and record below

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
17"	+/- 0.50"	17"	✓			
0.105"	+/- 0.010"	0.095"	✓			
0.100"	+/- 0.010"	0.091"	✓			
0.065"	+/- 0.010"	0.076"	✓			
1.5"	+/-0.100"					
46"	+/-0.100"					
29.1"	+/-0.100"					

Measured by: <i>Wt</i>
Date: 08.05.05

Audited by: <i>ly</i>
Date: 08.07.20

Prototype Approval: <i>ly</i>
Date: 08.05.20

Rev	Date	Change	Revised by	Approved
		New Issue		

Date: Wednesday, 30/04/2008 7:48:27 AM
 User: Jean-Luc Menard

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BUBBLE DOOR 412 VERTICLE REFERENCE
Job Number : 38896	
Estimate Number : 13138	
P.O. Number :	Part Number : D36761
This Issue : 30/04/2008 S.O. No. :	Drawing Number : D3676 PROTOTYPE
Prsht Rev. : NC	Project Number : 00224
First Issue : 30/04/2008 Type : THERMOFORMING	Drawing Revision : A
Previous Run : 37191	Material :
Written By : <u>DL</u>	Due Date : 07/05/2008 Qty: 2 Um: Each
Checked & Approved By :	
Comment : Est. Rev A New Product 01/24/2008 DL Verified:JLM	

PROTOTYPE

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0 MACRLICS ~~250~~ 236 ~~250 103766~~ Plexiglass G .250

Comment: Qty.: 13.0000 sf(s)/Unit Total : 26.0000 sf(s)
 0.250" PLEXIGLAS G CLEAR CAST ACRYLIC SH

Sabic

1) Batch # M107871

7/0:6249.

2.0

HAND FINISH TH

HAND FINISHING THERMOFORMING



Comment: HAND FINISHING THERMOFORMING

1) Cut Blanks to 30" by 48"

PR 08/05/01

(X3)

3.0

THERMOFORMING

THERMOFORMING MACHINE



Comment: THERMOFORMING MACHINE

Thermoform as per Dwg. D3676 and Folio FTA 018

Dwg. Rev. A

Folio Rev. A

DL 08.05.01

(X3)

4.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

1) Check Surface finish for undesired marks, voids, dimples etc.

2) Check depth of bubble to ensure conformity to drawing tolerances.

DL 08.05.01

(X3)

-PTO

Receiving Report

Date: 8/4/29

Batch No: M107871

Supplier: SABIC

Dart P/O: 6249

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☐

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☒ No ☐ N/A ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC6 Inspection ☒ N/A ☒
 Work Order N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

Production/Admin:

Date: 08/05/01
 Received/Costing: RCV 7764
 Initial: CS

Location

POSITIVE RECALL

EFFECTIVE 08-05-01 AUTH
 RELEASED DATE 08-05-02

H:\FORMS\Purchasing\approved purch\RECREPORT Rev D

*** Any back ordered product has been cancelled. Please reorder. ***

 *** IF YOU ARE NOT CURRENTLY RECEIVING OUR INVOICES ***
 *** VIA EMAIL OR FAX, PLEASE SUPPLY US WITH AN EMAIL ***
 *** ADDRESS OR FAX NUMBER . FAX TO 905-789-3161 ***

 *

RECEIVED MAY 05 2008

PLEASE Remit To: SABIC Polymershapes 9150 Airport Road Brampton ON L6S 6G1
 Phn : (613)745-7043 Fax : (613)745-4291

NO GOODS TO BE RETURNED WITHOUT APPROVAL FROM US. ALL DISCREPANCIES MUST BE REPORTED WITHIN 3 DAYS.

SABIC
Innovative
Plastics™

سابك
sabic

Certificate of Compliance

Sold To: Dart Aerospace

Date: April 29, 2008

Your Purchase Order Number: 8249

Sabic Sales Order Number: 082130


Line Item Number: 001

Quantity: Three (3) Sheets

Description: GM – Clear .236" 60" X 96"
Sabic p/n: 10101005

These parts are manufactured in accordance with: Plexiglas GM

This to certify that the material finishes and functional requirements of the above listed parts are in accordance with the reference procurement specifications, control drawings or parts designation and latest revisions as referenced on the subject purchase order.



Wade Dixon
Outside Sales Rep.

SABIC
Innovative
Plastics

سابك
sabic

SABIC Polymershapes

1250 OLD INNES RD. 519 OTTAWA, ONT. K1B 5L3
TEL: 613 745 7043 FAX: 613 745 8163

CERTIFICATE OF COMPLIANCE

SOLD TO: DART AEROSPACE

DATE: 6/16/2008

YOUR PURCHASE ORDER : 8249

OUR SHIPPER NO: 082130

LINE ITEM # : 1

QUANTITY: 3

DESCRIPTION: Plexiglass GM .236 x 60" x 96 P/N 10101005

THESE PARTS WERE MANUFACTURED IN ACCORDANCE WITH:
Plexiglas GM ASTM D-4802 Formally LP-391

THIS IS TO CERTIFY THAT THE MATERIAL FINISHES AND FUNCTIONAL REQUIREMENTS
OF THE ABOVE LISTED PARTS ARE IN ACCORDANCE WITH THE REFERENCE
PROCUREMENT SPECIFICATIONS, CONTROL DRAWINGS OR PARTS DESIGNATION AND
LATEST REVISIONS AS REFERENCED ON THE SUBJECT PURCHASE ORDER.

AUTHORIZED REPRESENTATIVE SIGNATURE



JON CALDWELL
BRANCH MANAGER